APPENDIX D:
COSTS TO THE GOVERNMENT FOR EACH ALTERNATIVE

INTRODUCTION

This cost analysis represents an estimate of initial costs, replacement costs, and annual costs that would be associated for each alternative. Its primary value is to illustrate the relative cost for each alternative as compared to the existing program. The cost summary for each alternative provides this comparison. These costs are identified by line item in Tables D-1 and D-2. This section is based on, and hereby incorporates by reference, Appendix F of the FEIS.

COSTS COMMON TO ALL ALTERNATIVES

Initial Costs

All alternatives include the costs of an additional rotary plow to assist with snow removal on the road between the North Entrance and Cooke City, to supplement spring opening and for routing snow plowing within Grand Teton and the Parkway. To improve road conditions, all alternatives include the purchase of four additional groomers. In addition, all alternatives include the purchase of search and rescue equipment and replacing substandard, non-winterized housing. Recycling centers would be built at interior developed areas and weather stations would be placed at critical, avalanche prone locations. To provide better visitor services, new warming huts would replace substandard huts at Old Faithful, Madison, and Canyon. A new warming hut also would be constructed at Norris. In GTNP, a new warming hut would be placed along the Teton Park Road to provide visitor services and interpretive opportunities that focus on nonmotorized uses. Oversnow fire engines would be purchased and placed at Madison, Canyon, Lake, Grant, East Entrance, and South Entrance. An oversnow ambulance would be placed at Lake to serve the east side of the park, and compliment the existing ambulance at Old Faithful.

All alternatives include design, contract administration, and contingency costs for the construction projects, estimated at the NPS standard of 35%.

Replacement Costs

The equipment that is proposed for replacement in all alternatives is the new equipment shown as purchased under the initial costs for each alternative. The replacement schedule for equipment is the desirable interval based on past performance. Only new equipment is shown as being replaced. Costs of replacing equipment currently used in the parks' winter operations are not included here. This underestimates the true cost of replacing all park winter-related equipment on a desirable schedule.

Annual Costs

The parks' winter operations are currently funded through base funds (Operations of the National Park Service) as well as non-base money (such as construction projects) and revenue from park entrance fees. The total annual cost of winter program management, including overhead expenses such as facility maintenance, utilities, and personnel and support services, was shown in the Draft Environmental Impact Statement (DEIS) to be approximately $6,480,558 for fiscal year 1998 (in YNP). Incremental cost changes relate to estimates of initial costs and direct field expenses for implementing programs, as they

would occur in each alternative. For Grand Teton and the Parkway, the comparable winter management budget was about $3,033,000. These are funds devoted to snowmobile use and road grooming, maintaining interior park buildings, visitor and resource protection information, planning, and equipment replacement. A portion of Grand Teton's budget was allocated for implementation of the Continental Divide Snowmobile Trail (CDST). These costs are not included in the following tables; only additional costs associated with the alternatives are included. Because these tables do not include current water-related expenditures, they underestimate the true cost of operating Yellowstone and Grand Teton during the winter season.

All alternatives seek to increase interpretive opportunities related to the unique aspects of the winter environment by providing interpretive programs and publications at destination areas and warming huts. All alternatives extend the winter use season in YNP, which would require additional road grooming for two weeks. To provide additional non-motorized opportunities for park visitors, six additional miles of ski trails would be groomed.

Life Cycle Costs

A 10% surcharge was added to the annual costs for all alternatives to account for the additional supplies, administrative, and management support costs that the increased activities would require. A 25-year period was used to calculate life cycle costs for all elements.

COST SUMMARIES FOR EACH ALTERNATIVE

Alternative 1a and 1b: No Action

Alternatives 1a and 1b differ only in their timeframe for implementation, and thus their costs would be identical. Under alternative 1b, an additional year would be allowed for phasing in snowcoach-only travel.

Initial Costs

Alternatives 1a and 1b put the emphasis on access to Yellowstone via snowcoach. Thirty administrative new generation snowcoaches would be purchased and placed at various locations in the park. The administrative snowmobile fleet would be reduced from 105 to 30 best available technology machines, and they would only be used for emergency and administrative functions. An additional 14 housing units would be built for the additional ranger, maintenance, and interpretive staff, and 20 substandard housing units would be replaced. Wildlife and sound research would occur to augment existing wildlife work and to understand unwanted noise concerns.

For GTNP additional housing for winter seasonal employees would be winterized. Due to changes in grooming and plowing needs, additional road maintenance machinery would need to be acquired. Colter Bay facilities would need to be winterized and upgraded to accommodate staging needs at that location (vice Flagg Ranch).

Annual Costs

Because of this alternative's focus on adaptive management and monitoring, wildlife, water quality, soundscapes, and air quality monitoring would occur. An additional six interpretation full-time equivalents (FTE) would be used to carry out the alternative's goal of increasing interpretive

opportunities in and outside the park. In addition, there would be two additional FTEs for law enforcement and maintenance.

For GTNP an additional two FTEs for interpretive and law enforcement rangers would be necessary for implementing increased interpretive programs, law enforcement, and providing a presence at the new warming huts. In addition, there are costs and credits associated with converting from wheeled vehicles to oversnow vehicles on the Flagg Ranch to Coulter Bay Road segment.

Cost Summary

For YNP, implementing alternative 1a or 1b would cost an estimated $2,833,203 more per year than what is currently spent on winter use management. For GTNP, implementing alternative 1a or 1b would cost an estimated $502,493 more per year than what is currently spent on winter use management.

Alternative 2

Initial Costs

To upgrade the NPS snowmobile fleet to BAT, alternative 2 would purchase 150 BAT snowmobiles for YNP and 8 BAT snowmobiles for Grand Teton. To provide acceptable winterized housing for park employees, twenty additional housing units would be built, and twenty substandard units would be replaced. A visitor carrying capacity study would be completed, at a cost of approximately $2,500,000. Equipment for wildlife and soundscapes monitoring would also be purchased.

Annual Costs

Because of this alternative's focus on adaptive management, monitoring on the parks' wildlife, water quality, soundscapes, air quality, and visitor experience would occur. To enforce snowmobile emissions requirements and park rules, 19 additional seasonal law enforcement rangers would be hired for the winter season. Additional interpretive rangers would provide guided ski and snowshoe tours and other interpretive programs. In addition, increased road grooming would help keep park roads in good condition, especially on busy days when daily entry limits are approached.

For YNP, implementing alternative 2 would cost an estimated $3,654,038 more per year than what is currently spent on winter use management. For GTNP, implementing alternative 2 would cost an estimated $1,093,413 more per year than what is currently spent on winter use management.

Alternative 3

Initial Costs

To upgrade the NPS snowmobile fleet to BAT, alternative 3 would purchase 150 BAT snowmobiles for YNP and 8 BAT snowmobiles for Grand Teton. To provide acceptable winterized housing for park employees, twenty additional housing units would be built, and twenty substandard units would be replaced. Twenty additional new generation snowcoaches would be purchased for administrative use and located at various locations throughout YNP. A visitor carrying capacity study would be completed, at a cost of approximately $2,500,000. Equipment for wildlife and soundscapes monitoring would also be purchased.

Annual Costs

Because of this alternative's focus on adaptive management, monitoring on the parks' wildlife, water quality, soundscapes, air quality, and visitor experience would occur. Six additional seasonal law enforcement rangers would be hired for the winter season to enforce park rules (fewer law enforcement is needed relative to alternative 2 since BAT would be enforced through concessions contracts). Additional interpretive rangers would provide guided ski and snowshoe tours and other interpretive programs. In addition, increased road grooming would help keep park roads in good condition, especially on busy days when daily entry limits are approached. One additional FTE for business management would be hired to manage concessions contracts and the guiding program.

For YNP, implementing alternative 3 would cost an estimated $3,451,400 more per year than what is currently spent on winter use management. For GTNP, implementing alternative 3 would cost an estimated $1,065,913 more per year than what is currently spent on winter use management.

Alternative 4

Initial Costs

To upgrade the NPS snowmobile fleet to BAT, alternative 4 would purchase 150 BAT snowmobiles for YNP and 8 BAT snowmobiles for Grand Teton. To provide acceptable winterized housing for park employees, twenty additional housing units would be built, and twenty substandard units would be replaced. Twenty additional new generation snowcoaches would be purchased for administrative use and located at various locations throughout YNP. A visitor carrying capacity study would be completed, at a cost of approximately $2,500,000. Equipment for wildlife and soundscapes monitoring would also be purchased.

Annual Costs

Because of this alternative's focus on adaptive management, monitoring on the parks' wildlife, water quality, soundscapes, air quality, and visitor experience would occur. Nine additional seasonal law enforcement rangers would be hired for the winter season to enforce park rules (fewer law enforcement is needed relative to alternative 2 since BAT would be enforced partly through concessions contracts). Additional interpretive rangers would provide guided ski and snowshoe tours and other interpretive programs. In addition, increased road grooming would help keep park roads in good condition, especially on busy days when daily entry limits are approached. One additional FTE for business management would be hired to manage concessions contracts and the guiding program.

For YNP, implementing alternative 4 would cost an estimated $3,583,416 more than what is currently spent on winter use management. For GTNP, implementing alternative 4 would cost an estimated $1,065,913 more per year than what is currently spent on winter use management.

Table D-1. LIFE CYCLE COST ANALYSIS

Presentworth Dollars

Project/Location: Yellowstone National Park - Final Winter Use Plan

Subject: Functional Component
Description:
Project Life Cycle = **25 Years**
Discount Rate = **7.00%**
Present Time = **Feb-03**

				FEIS Alternative A			Alternatives 1a and 1b			Alternative 2			Alternative 3			Alternative 4		
				Notes **No Action**			Notes **Snowcoach Only**											
INITIAL COSTS	**Quantity**	**UM**	**Unit Price**	**Quantity**	**Est.**	**PW**	**Quantity**	**Est.**	**PW**	**Quantity**	**Est.**	**PW**	**Quantity**	**Est.**	**PW**	**Quantity**	**Est.**	**PW**
Construction Costs																		
A. Add. Warming Huts	1	sq ft	$100	1 (Norris)	50,000	50,000	1 (Norris)	50,000	50,000	1 (Norris)	50,000	50,000	1 (Norris)	50,000	50,000	1 (Norris)	50,000	50,000
B. Add. Housing Unit	1	each	$125,000	12	1,500,000	1,500,000	14	1,750,000	1,750,000	20	2,500,000	2,500,000	20	2,500,000	2,500,000	20	2,500,000	2,500,000
C. Purchase Rotary Plow	1	each	$375,000	1	375,000	375,000	1	375,000	375,000	1	375,000	375,000	1	375,000	375,000	1	375,000	375,000
D. Purchase Groomer	1	each	$164,000	2	328,000	328,000	2	328,000	328,000	2	328,000	328,000	2	328,000	328,000	2	328,000	328,000
E. Purchase SAR Equip	1	each	$19,000	1	19,000	19,000	1	19,000	19,000	1	19,000	19,000	1	19,000	19,000	1	19,000	19,000
F. Purchase Fire Engine	1	each	$200,000	6	1,200,000	1,200,000	6	1,200,000	1,200,000	6	1,200,000	1,200,000	6	1,200,000	1,200,000	6	1,200,000	1,200,000
G. Purchase Ambulance	1	each	$84,000	1	84,000	84,000	1	84,000	84,000	1	84,000	84,000	1	84,000	84,000	1	84,000	84,000
H. Purchase Snowcoach	1	each	$180,000	5	900,000	900,000	30	5,400,000	5,400,000	5	900,000	900,000	20	3,600,000	3,600,000	20	3,600,000	3,600,000
I. Purchase BAT Snowmobile	1	each	$5,700	11	62,700	62,700	30	34,200	34,200	150	855,000	855,000	150	855,000	855,000	150	855,000	855,000
J. Purchase Garbage Storage	1	each	$80,000	1	80,000	80,000	4	320,000	320,000	4	320,000	320,000	4	320,000	320,000	4	320,000	320,000
K. Carrying Capacity Study	1	each	$2,500,000							1	2,500,000	2,500,000	1	2,500,000	2,500,000	1	2,500,000	2,500,000
L. Wildlife Research/Equipmen	1	each	$200,000		100,000	100,000		158,000	158,000		279,000	279,000		203,000	203,000		203,000	203,000
M. Soundsapes Equipment	1	each	$75,000			0		50,000	50,000		75,000	75,000		75,000	75,000		75,000	75,000
N. Provide Recycle Centers	1	sq ft	$50	5	150,000	150,000	5	150,000	150,000	5	150,000	150,000	5	150,000	150,000	5	150,000	150,000
O. Replace Housing	1	each	$125,000	20	2,500,000	2,500,000	20	2,500,000	2,500,000	20	2,500,000	2,500,000	20	2,500,000	2,500,000	20	2,500,000	2,500,000
P. Install Weather Stations	1	each	$15,000	2	30,000	30,000	2	30,000	30,000	2	30,000	30,000	2	30,000	30,000	2	30,000	30,000
Q. Replace Warming Huts	1	sq ft	$100	4(Can/2OF/Mad	400,000	400,000	4 huts	400,000	400,000	4 huts	400,000	400,000	4 huts	400,000	400,000	4 huts	400,000	400,000
Design/Contract/Supervisior	35%			35%	1,620,500	1,620,500	35%	1,708,000	1,708,000	35%	1,970,500	1,970,500	35%	1,970,500	1,970,500	35%	1,970,500	1,970,500
Total Initial Cost						**9,399,200**			**14,556,200**			**14,535,500**			**17,159,500**			**17,159,500**
Initial Cost PW Savings (Compared to Alt. A)									**(5,157,000)**			**(5,136,300)**			**(7,760,300)**			**(7,760,300)**
REPLACEMENT COST/ SALVAGE VALUE																		
Description	**Year**		**PW Factor**															
A. Groomer	7		0.62274974	2 groomers	328,000	204,261	2 groomers	328,000	204,261	2 groomers	328,000	204,261	2 groomers	328,000	204,261	2 groomers	328,000	204,261
C. Rotary Plow	18		0.29586392	1 rotary	375,000	110,948	1 rotary	375,000	110,948	1 rotary	375,000	110,948	1 rotary	375,000	110,948	1 rotary	375,000	110,948
D. Snowmobile	3		0.81629788	11	62,700	51,181	-76	-433,200	(353,620)	150	855,000	697,934	150	855,000	697,934	150	855,000	697,934
E. Garbage Storage	25		0.18424918	1 storage trail.	80,000	14,739	4 storage trail.	320,000	58,959	4 storage trail.	320,000	58,959	4 storage trail.	320,000	58,959	4 storage trail.	320,000	58,959
F. Snowcoaches	10		0.50834929	5 snowcoaches	900,000	457,514	30 snowcoaches	5,400,000	2,745,086	5 snowcoaches	900,000	457,514	20 snowcoaches	3,600,000	1,830,057	20 snowcoaches	3,600,000	1,830,057
Total Replacement/Salvage Costs						**838,643**			**2,765,634**			**1,529,616**			**2,902,159**			**2,902,159**
ANNUAL COSTS																		
Description	**Escl. %**		**PWA**															
A. Extend Groom Season	0.000%		11.6535832			0	184 miles-2 wk	44,940	523,712	184 miles-2 wk	44,940	523,712	184 miles-2 wk	44,940	523,712	184 miles-2 wk	44,940	523,712
B. Groom Ski Trail	0.000%		11.6535832			0	6 miles add.	210	2,447	6 miles add.	210	2,447	6 miles add.	210	2,447	6 miles add.	210	2,447
C. Wildlife Monitoring	0.000%		11.6535832		50,000	582,679		131,000	1,526,619		277,000	3,228,043		181,000	2,109,299		181,000	2,109,299
D. Water Quality Monitoring	0.000%		11.6535832		15,000	174,804		15,000	174,804		100,000	1,165,358		70,000	815,751		70,000	815,751
E. Soundscape Monitoring	0.000%		11.6535832					100,000	1,165,358		200,000	2,330,717		155,000	1,806,305		155,000	1,806,305
F. Visitor Experience Monitoring	0.000%		11.6535832								75,000	874,019		75,000	874,019		75,000	874,019
G. Air Quality Monitoring	0.000%		11.6535832		200,000	2,330,717		200,000	2,330,717		300,000	3,496,075		200,000	2,330,717		200,000	2,330,717
H. Add. Interp. Pubs.	0.000%		11.6535832		81,500	949,767		81,500	949,767		81,500	949,767		81,500	949,767		81,500	949,767
I. Warming Hut Maintenance	0.000%		11.6535832	1 hut	5,000	58,268	1	5,000	58,268	1	5,000	58,268	1	5,000	58,268	1	5,000	58,268
J. Snowmobile Maintenance	0.000%		11.6535832	11	11,341	132,163	-76	-78,280	(912,242)	30		0	30		0	30		0
K. Housing Maintenance	0.000%		11.6535832	8 units	120,000	1,398,430	14 units	210,000	2,447,252	20 units	300,000	3,496,075	20 units	300,000	3,496,075	20 units	300,000	3,496,075
L. Additional Ranger Staff	0.000%		11.6535832	3 for 1/3 yr	45,000	524,411	3 for 1/3 yr	45,000	524,411	16 for 1/3 yr	240,000	2,796,860	3 for 1/3 yr	45,000	524,411	6 for 1/3 yr	90,000	1,048,822
M. Additional Interpretive Staff	0.000%		11.6535832	10 for 1/3 yr	150,000	1,748,037	15 for 1/3 yr	225,000	2,622,056	20 for 1/3 yr	299,970	3,495,725	10 for 1/3 yr	149,985	1,747,863	15 for 1/3 yr	225,000	2,622,056
N. Additional Maintenance Staff	0.000%		11.6535832	3 for 1/3 yr	45,000	524,411	3 for 1/3 yr	45,000	524,411	3 for 1/3 yr	45,000	524,411	3 for 1/3 yr	45,000	524,411	3 for 1/3 yr	45,000	524,411
O. Better Avalanche Control	0.000%		11.6535832		25,000	291,339		25,000	291,340		25,000	291,340		25,000	291,340		25,000	291,340
P. Better Grooming	0.000%		11.6535832		25,000	291,339		25,000	291,340		50,000	582,679		50,000	582,679		50,000	582,679
Q. Administrative Snowcoach Maint.	0.000%		11.6535832	5 coaches	25,000	291,339	30 coaches	150,000	1,748,037	5 coaches	25,000	291,340	20 coaches	100,000	1,165,358	20 coaches	100,000	1,165,358
R. Additional Business Mgmt Staff	0.000%		11.6535832			0			0			0	1 FTE	45,000	524,411	1 FTE	45,000	524,411
S. Management/Admin	0.000%		11.6535832	10% mgt/admn	79,784	929,770	10% mgt/admn	122,437	1,426,830	10% mgt/admn	206,862	2,410,683	10% mgt/admn	157,264	1,832,683	10% mgt/admn	169,265	1,972,544
Total Annual Costs (Present Worth)						**10,227,475**			**15,695,127**			**26,517,518**			**20,159,516**			**21,697,981**
Total Life Cycle Costs (Present Worth)						**20,465,318**			**33,016,961**			**42,582,634**			**40,221,175**			**41,759,640**
Life Cycle Savings (Compared to Alt. A)									**(12,551,644)**			**(22,117,317)**			**(19,755,857)**			**(21,294,323)**
Discounted Payback (Compared to Alt. A)			**PP Factor**					**-8.13 Years**			**-3.52 Years**			**-7.54 Years**			**-6.68 Years**	
Total Life Cycle Costs (Annualized)			**0.08581052**		**1,756,139 Per Year**			**2,833,203 Per Year**			**3,654,038 Per Year**			**3,451,400 Per Year**			**3,583,416 Per Year**	

Table D-2. LIFE CYCLE COST ANALYSIS

Presentworth Dollars

Project/Location: GTNP and JDRMP - Final Winter Use Plan

Subject: Functional Component
Description:
Project Life Cycle = **25 Years**
Discount Rate = **7.00%**
Present Time = **Jun-00**

				FEIS Alternative A			Alternatives 1a and 1b			Alternative 2			Alternative 3			Alternative 4		
				Notes	No Action		Notes	Snowcoach Only										
INITIAL COSTS	**Quantity**	**UM**	**Unit Price**	**Quantity**	**Est.**	**PW**	**Quantity**	**Est.**	**PW**	**Quantity**	**Est.**	**PW**	**Quantity**	**Est.**	**PW**	**Quantity**	**Est.**	**PW**
Construction Costs																		
A. Add. Warming Huts	1	sq ft	$100			0	1	40,000	40,000	1	40,000	40,000	1	40,000	40,000	1	40,000	40,000
B. Winterize Housing Unit	1	each	$10,000			0	4	40,000	40,000	4	40,000	40,000	4	40,000	40,000	4	40,000	40,000
C. Purchase D-7 Dozer	1	each	$400,000			0	1	400,000	400,000	1	400,000	400,000	1	400,000	400,000	1	400,000	400,000
D. Purchase Grader/Tractor	1	each	$225,000			0	1	225,000	225,000	1	225,000	225,000	1	225,000	225,000	1	225,000	225,000
E. Purchase Groomer	1	each	$142,000			0	2	284,000	284,000	2	284,000	284,000	2	284,000	284,000	2	284,000	284,000
F. Purchase BAT Snowmobile	1	each	$5,700	2	11,400	11,400	4	22,800	22,800	8	45,600	45,600	8	45,600	45,600	8	45,600	45,600
G. CDST on Widened Shoulde	1	mile	$150,000			0		0	0	8	4,870,000	4,870,000	8	4,870,000	4,870,000	8	4,870,000	4,870,000
H. Winter Imprvmnt at Colter	1	each	$2,000,000			0		2,000,000	2,000,000									
Design/Contract/Supervisio	35%			35%	0	0	35%	728,000	728,000	35%	1,732,500	1,732,500	35%	1,732,500	1,732,500	35%	1,732,500	1,732,500
																		0
Total Initial Cost						**11,400**			**3,739,800**			**7,637,100**			**7,637,100**			**7,637,100**
Initial Cost PW Savings (Compared to Alt. 1									**(3,728,400)**			**(7,625,700)**			**(7,625,700)**			**(7,625,700)**
REPLACEMENT COST/ SALVAGE VALUE																		
Description	**Year**		**PW Factor**															
A. Groomer	10		0.50834929			0	2	284,000	144,371	2	284,000	144,371	2	284,000	144,371	2	284,000	144,371
B. Snowmobile	3		0.81629788	2	11,400	9,305	4	22,800	18,611	8	45,600	37,223	8	45,600	37,223	8	45,600	37,223
C. Grader	20		0.258419			0	1	225,000	58,144	1	225,000	58,144	1	225,000	58,144	1	225,000	58,144
D. Dozer	20		0.258419				1	400,000	103,367	1	400,000	103,367	1	400,000	103,367	1	400,000	103,367
Total Replacement/Salvage Costs						**9,305**			**324,493**			**343,105**			**343,105**			**343,105**
ANNUAL COSTS																		
Description	**Escl. %**		**PWA**															
A. Groom Snow Routes	0.000%		11.6535832			0	18.2	124,740	1,453,668			0			0			0
B. Groom Motor Snow Trails	0.000%		11.6535832			0	-33.9	-96,106	(1,119,979)			0			0			0
C. Plow Road	0.000%		11.6535832			0	-21	-157,080	(1,830,545)			0			0			0
D. Remove Sand	0.000%		11.6535832			0	No Sand Rmvl.	-1,008	(11,747)			0			0			0
E. Spring Open	0.000%		11.6535832			0	21	32,592	379,814			0			0			0
F. Wildlife Monitoring	0.000%		11.6535832					50,000	582,679		100,000	1,165,358		75,000	874,019		75,000	874,019
G. Soundscapes Monitoring	0.000%		11.6535832					50,000	582,679		100,000	1,165,358		100,000	1,165,358		100,000	1,165,358
H. Air Quality Monitoring	0.000%		11.6535832					27,500	320,474		55,000	640,947		55,000	640,947		55,000	640,947
I. Add. Interp. Pubs.	0.000%		11.6535832					10,000	116,536		10,000	116,536		10,000	116,536		10,000	116,536
J. Warming Hut Maintenance	0.000%		11.6535832			0	1	5,000	58,268	1	5,000	58,268	1	5,000	58,268	1	5,000	58,268
K. Snowmobile Maintenance	0.000%		11.6535832	2	2,060	24,006	4	4,120	48,013	8	8,240	96,026	8	8,240	96,026	8	8,240	96,026
L. Additional Ranger Staff	0.000%		11.6535832			0	3 for 1/3 yr	45,000	524,411	3 for 1/3 yr	45,000	524,411	3 for 1/3 yr	45,000	524,411	3 for 1/3 yr	45,000	524,411
M. Additional Interpretive Staff	0.000%		11.6535832			0	3 for 1/3 yr	45,000	524,411	3 for 1/3 yr	45,000	524,411	3 for 1/3 yr	45,000	524,411	3 for 1/3 yr	45,000	524,411
N. Better Grooming	0.000%		11.6535832			0			0	8 mi Grassy Lk	3,240	37,758	8 mi Grassy Lk	3,240	37,758	8 mi Grassy Lk	3,240	37,758
O. Management/Admin	0.000%		11.6535832	10% mgt/admn	206	2,400	10% mgt/admn	13,976	162,868	10% mgt/admn	37,148	432,907	10% mgt/admn	34,648	403,773	10% mgt/admn	34,648	403,773
Total Annual Costs (Present Worth						**26,406**			**1,791,550**			**4,761,980**			**4,441,507**			**4,441,507**
Total Life Cycle Costs (Present Worth)						**47,111**			**5,855,843**			**12,742,185**			**12,421,712**			**12,421,712**
Life Cycle Savings (Compared to Alt. 1									**(5,808,731)**			**(12,695,074)**			**(12,374,600)**			**(12,374,600)**
Discounted Payback (Compared to Alt. 1			**PP Factor**					**-20.89**	**Years**		**-17.53**	**Years**		**-18.71**	**Years**		**-18.71**	**Years**
Total Life Cycle Costs (Annualized			**0.08581052**		**4,043**	**Per Year**		**502,493**	**Per Year**		**1,093,413**	**Per Year**		**1,065,913**	**Per Year**		**1,065,913**	**Per Year**